

REMARKS/ARGUMENTS

This Amendment is responsive to the Office Action mailed on February 18, 2003. A Petition for a 3-month extension of time is attached so that the due date is to and including August 18, 2003. Entry of this Amendment is requested.

Prior to this Amendment, claims 1-4 were canceled and claims 5-6 were pending. In this Amendment, claim 5 is amended to correct a typographical error and claims 7-9 are added so that claims 5-9 are pending and subject to examination.

Claims 5-6 were rejected as obvious over Crowley et al. (U.S. Patent No. 6,459,147) in view of Williams et al. (U.S. Patent No. 5,307,756) and Temple et al. (U.S. Patent No. 5,103,290).

The Examiner states that Crowley et al. teaches everything except: a) a die being bumped and having solder bump connections, and b) a copper clip/strap and drain regions of the die being on the backside of the die such that the copper strap connects the drain regions of the die and the lead rail. The Examiner relies on Temple et al. and Williams et al. to supplement the deficiencies of Crowley et al. The alleged motivation to combine the references is so that “rework capability on the top side of the die and the integrity of bump connections can be improved in Crowley [et al.’s] device.” See page 4 of the Office Action.

This rejection is traversed. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). As noted by the capitalized header in MPEP section 2143.01, “The prior art must suggest the desirability of the claimed invention.” (emphasis added.) Here, the prior art fails to fail to teach or suggest that “rework capability on the top side of the die and integrity of bump connections can be improved in Crowley [et al.’s] device” if a copper clip/strip and solder bump connections are used. Accordingly, the obviousness rejection is improper, since the motivation to combine is not from the prior art. Furthermore, applying a copper clip to Crowley et al.’s package would not have logically improved “rework capability.” Accordingly, one skilled in the art would not have modified Crowley et al. for the reasons provided by the Examiner.

Appl. No. 09/548,946
Amdt. dated August 15, 2003
Reply to Office Action of on February 18, 2003

PATENT

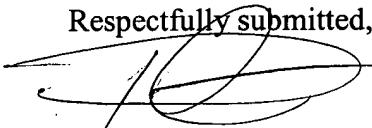
Also, the modification proposed by the Examiner would change the fundamental principle of Crowley et al.'s package. If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). MPEP 2143.01. As noted by col. 3, lines 32-50 of Crowley et al., in Crowley et al., the drains are at the bottom surface of the die 14 and the sources are at the top surface of the die 14. If one were to modify Crowley et al. with the teachings of Temple et al. to have a "copper clip being attached to the backside of the die connecting the drain regions", one would need to flip over the die 14 in Crowley et al. and completely re-arrange the components of Crowley et al.'s package. As such, Applicants believe that this modification would change the principle of operation of Crowley et al.'s die package.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 415-576-0200.

Respectfully submitted,



Patrick R. Jewik
Reg. No. 40,456

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, 8th Floor
San Francisco, California 94111-3834
Tel: 415-576-0200
Fax: 415-576-0300
PRJ:prj
60018936 v1